

Method and device for numerical control of path for machine-tools or robots

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US5317682 US5282143

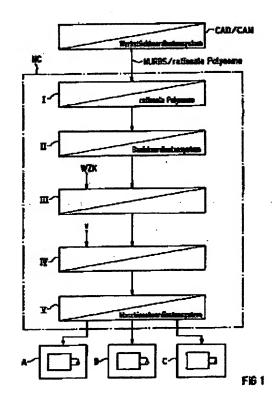
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Abstract of EP0706103

Relative motion is enabled between a machine tool and workpiece in one or more axes, the path being defined by interpolation between predefined path points. Information about the path to be generated is obtained from a source (CAD/CAM) relative to a workpiece coordinate system in the form of non-rational-base-splines, or NURBS, or as rational polynomials. The NURBS are converted into rational polynomials in, or the existing rational polynomials or accepted by, the numerical controller (NC). The rational polynomials are analytically transformed into a base coordinate system, taking into account of correction parameters, esp. tool correction parameters, as required. The transformed polynomials are interpolated and the resulting signal transformed into the machine coordinate system, distributed among the machine axes and fed to the corresp. drives.



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